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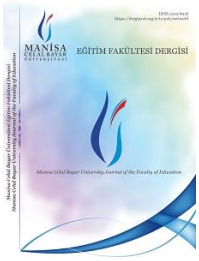

Analysis of Participant Achievement in the 0-72 Months Child Development Course Program: Impact of Age, Education Level, Employment Status, and Reasons for Choosing the Course

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Abstract

This study aims to examine how demographic factors of the participants affect their achievement in completing the 0-72 Months Child Development Course Program. Success in this context is defined by participants' ability to meet the course objectives, which focus on enhancing knowledge and skills in early childhood development. The study employs a quantitative, correlational survey design, with a research population consisting of 681 trainees enrolled in the program during the 2019-2020 academic year. The 0-72 Months Child Development course curriculum prepared by the Ministry of National Education General Directorate of Lifelong Learning was applied to the participants. Data were analyzed using a binary logistic regression model. In the first stage, the individual effects of each demographic variable on course success were examined. In the second stage, the combined impact of those variables found to have a significant effect was assessed. The analysis revealed that participants who were unemployed and those aged 30-39 had a higher likelihood of successfully completing the course. However, participants' purpose of attending the course and their education level did not have a significant effect on the likelihood of being successful in the course. The results of the study were discussed and recommendations were made.

Keywords
1. Child development
2. Curriculum
3. Academic achievement
4. Lifelong learning
5. Curriculum evaluation

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INTRODUCTION

The healthy development of children at an early age and their ability to lead a successful life is one of the main goals of the education system. Accordingly, early childhood is a critical period covering the age range of 0-6 years, during which almost all aspects of growth and development occur rapidly (Amalia & Khoiriyati, 2018). Early childhood education helps children develop cognitive, social, emotional, and motor skills (Khatib, Gaidhane, Ahmed, Saxena & Syed, 2020; Senemoğlu, 1994; Yaşar Ekici & Kırkıç, 2021). In addition, early childhood education increases children's self-confidence and gives them a more positive outlook on life (Bierman et al., 2008; Ramey & Ramey, 2004; Sylva, Melhuish, Sammons, Siraj-Blatchford & Taggart, 2004). Furthermore, early childhood education improves children's skills at school entry, and in some cases, these effects can continue into adulthood (Markowitz, Bassok & Hamre, 2018). In other words, the education offered to children in early childhood forms a foundation for their lifelong learning journey (Akdağ, 2015; Duran & Taştekin, 2020; Kim & Park, 2020; Medel-Añonuevo, Ohsako & Mauch, 2001). Various factors are important for the healthy growth and development of children in this period, the most important of which is that they receive a quality education.

There are serious problems around the world in terms of children's access to early childhood education. Especially in low- and middle-income countries, access to early childhood education is limited (Engle et al., 2011; McCoy et al., 2017; United Nations Educational, Scientific and Cultural Organization [UNESCO], 2019). International reports and scientific studies indicate that one of the reasons for limited access to early childhood education in low- and middle-income countries is the lack of teachers at this level (Global Partnership for Education, 2019; International Institute for Educational Planning, 2019; Organisation for Economic Co-operation and Development [OECD], 2019; Neuman & Powers, 2021; Sun, Rao & Pearson, 2015; United Nations International Children's Fund [UNICEF], 2020). This situation poses a significant challenge for children to develop healthily at an early age and to lead a successful life in the future. Different policies are being developed and implemented in low- and middle-income countries to increase the number of early childhood education teachers and improve the quality of education. Türkiye, one of the middle-income countries (World Bank, 2023), is one of the countries that have developed policies and initiatives in this regard.

In Türkiye, there are 63,142 preschool teachers for 1,885,004 preschool students in the 2021-2022 academic year (Ministry of National Education (MoNE [MEB]), 2022). In other words, there are approximately 30 preschool students per teacher. This number is higher than the optimum student-teacher ratio for planning and implementing different developmental activities for different developmental areas of children in early childhood (Clifford et al., 2005; Early, Pianta & Cox, 1999). In order to meet the educational needs of children in early childhood, learning opportunities should be provided to develop physical, auditory, linguistic, tactile, kinesthetic, visual, cognitive, social-emotional, sexual, moral, and self-care developmental characteristics and skills (Harrell, 1977; Oral, 2016; Saçkes, 2013; Tunçeli & Zembat, 2017). In providing learning opportunities, developmental activities and games prepared for different developmental areas of children in this age group are utilized as an effective way of learning (Aksoy & Dere Çiftçi, 2020; Ayan & Memiş, 2012; Broström, 2006; Cheung, 2010; Kavak & Coşkun, 2017). With an insufficient number of preschool teachers, it seems quite difficult to provide these learning opportunities in a quality manner. In this situation, one plausible and practical way to improve the quality of early childhood education is to employ people who are qualified to assist preschool teachers in preschool institutions. Where to find such people or how to train them is one of the major challenges. In addition, the increasing importance attached to early childhood education in Türkiye in recent years can be seen in strategy documents and practices (MEB, 2018; MEB, 2019; Türkiye Cumhuriyeti Cumhurbaşkanlığı Strateji ve Bütçe Başkanlığı [Presidency of the Republic of Turkey Strategy and Budget Directorate], 2019). Accordingly, meeting the educational needs of individuals who want to improve themselves in early childhood education and have knowledge and skills in this field can contribute to making early childhood education more qualified. Therefore, when all these needs are evaluated together, it can be concluded that there are needs arising from society and individuals. Social demands and individual needs are two of the main sources used in the process of preparing and analyzing curricula (Talla, 2012). One of the curricula prepared to meet these

emerging needs is the 0-72 Months Child Development course curriculum prepared by the Ministry of National Education General Directorate of Lifelong Learning, where successful participants can work in early childhood education institutions under the supervision of a teacher or teacher assistant (MEB, 2017).

0-72 Months Child Development course is a program preferred by individuals who care about the development and education of preschool children, those who want to have a profession, and those who want to continue their education. The aim of the 0-72 Months Child Development course is for the participants who successfully complete the course to be able to prepare activities in accordance with the physical, motor, cognitive, language, social-emotional, sexual, and moral development characteristics of children and to develop their self-care skills (MEB, 2017). In the 0-72 Months Child Development course curriculum, it is stated that the course duration is 180 lesson hours and its content consists of 7 different subjects. At the end of each subject, the distribution is 40% theoretical and 60% practical in the evaluation made over 100 points with theoretical and performance-based exams (MEB, 2017). Participants who successfully complete the course are given a Course Completion Certificate (MEB, 2017).

For lifelong learning courses, such as the 0-72 Months Child Development course, where participants gain the prescribed knowledge, skills, and competencies, the graduation of participants is one of the main educational objectives. Considering that the content design of the curriculum and its ability to influence learning should support students' ability to graduate (Xing & Chen, 2019), it can be said that the ability of the participants to fulfill the graduation requirements is one of the important criteria for evaluating the achievement of the objectives of the curriculum and the achievement of the vocational education objectives. Studies in the literature suggest that demographic characteristics of the participants (Alhajraf & Alasfour, 2014; Gaspard, Burnett & Gaspard, 2011; Nasir, 2012), characteristics of the curriculum (Natriello, Pallas & Alexander, 1989; Palumbo & Kramer-Vida, 2012), and institutional characteristics (Eamon, 2005; Ensign & Woods, 2014; Grave, 2011) affect student achievement. Since a standardized curriculum is used for the 0-72 Months Child Development course and the procedures and principles regarding the institutions and organizations that will implement the course program are regulated by the Ministry of National Education Lifelong Learning Institutions Regulation (Türkiye Cumhuriyeti Cumhurbaşkanlığı [Presidency of the Republic of Turkey], 2018), participant characteristics that may have an impact on student success come to the fore.

Understanding the characteristics of individuals attending the 0-72 Months Child Development course is crucial for improving early childhood education because the success of such programs depends not only on the content delivered but also on the participants' ability to understand, internalize, and apply the knowledge effectively. Early childhood education is a highly sensitive and formative period that requires caregivers and educators to possess both the knowledge and the skills to promote healthy physical, cognitive, and emotional development in young children (Hanno, Jones & Lesaux, 2021; Kelemen, 2020; Lafave & Van Wyk, 2024).

Demographic variables like age, education level, and employment status directly influence participants' capacity to grasp and implement course content in meaningful ways. For instance, age may play a role in participants' adaptability and openness to learning new methods, with younger individuals potentially being more familiar with modern educational techniques, while older participants might bring more life experience and practical knowledge (Gopnik, Griffiths & Lucas, 2015; Phipps, Prieto & Ndinguri, 2013). Similarly, education level is a significant factor, as individuals with higher levels of education may find it easier to comprehend complex child development theories and apply them in real-world situations (Donavant, 2009; Yu, 2024). On the other hand, participants with lower levels of education may require more support and practical examples to bridge the gap between theoretical knowledge and practical application. Employment status also affects participants' ability to engage with the course content (Tang & Xing, 2022). Those currently employed in child care or related fields may have more immediate opportunities to apply what they learn, reinforcing their understanding and enhancing their professional development. In contrast, unemployed participants might view the course as a stepping stone toward employment, motivating them to fully absorb the material but potentially needing more time to practice and apply their learning.

By analyzing these demographic variables, we can identify the specific needs and challenges of different participant groups, enabling educators to tailor the course more effectively. This can lead to improved course outcomes, more targeted support for participants, and ultimately better child development outcomes as those who complete the course become more proficient in fostering early childhood education.

There are various studies on this subject in the literature (Delialioglu et al. 2010; Dinçay, 2020; Süslü & Ötken, 2020; Yukselturk & Top, 2013). Delialioglu et al. (2010) examined participant and institutional factors related to the achievement of trainees participating in a technology certificate program and showed that the employment status, age, and gender of the participants had an impact on participant achievement. What should not be overlooked in Delialioglu et al.'s (2010) study is that the study was designed for the success of participants in a certificate program offered over computer networks. Therefore, although the results of the study can contribute to the design and implementation of online course programs, it has a limitation for courses to be designed and implemented face-to-face.

In Dinçay's (2020) study conducted with participants who successfully completed four vocational education courses organized by the Turkish Employment Agency (İŞKUR) in Eskişehir province, findings on demographic variables were obtained. It was found that more than half of the successful participants were between the ages of 25-35. In terms of gender, it was determined that there was an almost equal level of participation (50.5% female and 49.5% male). In terms of education level, 64.9% of the participants were primary or high school graduates compared to associate degree or bachelor's degree graduates. It was stated that the participants who successfully completed the courses participated in the courses in order to change their professions, improve their existing professions, and increase their professional skills. However, the findings on whether there is a significant difference between the age, gender, educational status, and reason for preference variables of the successful participants are not included.

In the study of Süslü and Ötken (2020), the relationship between the achievement of the trainees participating in a face-to-face course and the education level of the trainees was examined. According to the findings obtained as a result of the research, it was seen that the education level of the trainees (secondary school-high school-university) variable was significant in the success of the trainees. In this study, focusing on only one of the demographic variables of the participants can be seen as a limitation of the study.

In Yukselturk and Top's (2013) study, the achievement of participants in an online course that requires the use of synchronous and asynchronous communication methods over the internet was analyzed in terms of various characteristics of the participants. The study concluded that the success of the participants varied according to gender and employment status. However, the authors stated that the fact that the sample of the study consisted of a small number of learners in only one online course was a limitation that weakened the generalizability of the results of the study.

The studies in the literature, the results of which are given above, show that very little research has been conducted on the effect of the demographic characteristics of the participants of the course programs on the achievement of the participants. However, the fact that there is no study on the achievement of the participants in the 0-72 Months Child Development Course Program, which aims to enable individuals to acquire basic knowledge and skills in child development and thus contribute to the healthy development of children, can be seen as an important gap in the literature. Therefore, this study aims to examine the effect of age, educational status, employment status, and purpose of participation on the probability of being successful in the 0-72 Months Child Development Course Program. This study is guided by the following research questions:

1. How does the age of participants,

2. How does the education level of participants,

3. How does the employment status of participants,

4. Do the participants' purposes for enrolling in the course affect their likelihood of successfully completing the 0-72 Months Child Development course?

This study focuses on investigating the factors affecting the achievement of individuals participating in the 0-72 Months Child Development Course Program. For this purpose, the logistic regression model was used to determine the effect of the demographic characteristics of the participants on the probability of being successful in the course. The findings may provide a useful roadmap for the design and implementation of such programs. Child development courses are designed to help educators, parents, caregivers, and those interested in the subject to monitor, assess, and support children's development in accordance with their developmental needs. Therefore, research on the impact of these courses can help to better understand and utilize the pedagogical strategies and learning materials used or to be used in the future for course participants. The results of this study can make an important contribution in terms of determining the factors affecting the achievement levels of participants in 0-72 Months Child Development Course Programs. It may help educational institutions to take the age, educational status, employment status, and reasons for choosing the course into account while planning the educational process. In addition, taking these factors into account when students choose the right course program for themselves can help them increase their achievement levels. In conclusion, this study can be an important step to increase success in 0-72 months of child development education and can contribute to the development of future curricula.

METHOD

This study is quantitative research in the correlational survey type. The research population of this study consists of 681 participants enrolled in the 0-72 Months Child Development course of Istanbul Metropolitan Municipality Art and Vocational Training Courses (ISMEK) in 2019-2020. The participants studied in 32 different course centers. The participants who were successful at the end of the course were given a MoNE Certificate, and they constituted the data of the successful category of the course achievement status variable, which is the dependent variable of the study. The participants who did not deserve the MoNE Certificate were included in the data of the unsuccessful category of the same variable. The independent variables of the study are four different categorical variables consisting of the participants' age, education level, employment status, and reasons for choosing the course. Logistic regression analysis was carried out to analyze the data.

Data Collection Tools and Data Collection

The course registration form was used as a data collection tool. The data was obtained from the information in ISMEK's course registration form that participants filled out when registering for the course. ISMEK also recorded whether the individuals who participated in the course were entitled to receive a MoNE Certificate at the end of the course. These data were updated by the Istanbul Metropolitan Municipality Human Resources and Education Department on November 08, 2021, and made publicly available on the website https://data.ibb.gov.tr/dataset/2019-2020-yillari-arasindaki-ismek-egitim-alan-vatandas-verisi. The downloaded data of 700 participants in Excel format was reviewed and organized in SPSS software file format to make it suitable for data analysis. The data of participants in groups with very few data (for example, 2) and data with extreme values were removed from the data set, and the data of 681 participants were made ready for analysis.

Participants

The participants of the study were 681 trainees participating in the 0-72 Months Child Development Course Program. Participants' ages, educational status, employment status, and reasons for choosing the course were recorded through the course registration form. The distribution of the participants according to their working status, reasons for choosing the course, educational status, and age groups is revealed in Table 1 below.

Table 1. Distribution of Participants According to Demographic Characteristics

Demographic characteristics		Frequency (n)	Percentage (%)
Employment status (ES)	Employee	89	13.1
	Unemployed	447	65.6
	Student	145	21.3
	Total	681	100
Reason for choosing the course (RCC)	Acquiring a profession, advancing in one's profession	604	88.7
	Generating income through production	32	4.7
	Developing my skills	18	2.6
	Acquiring a social environment	27	4
	Total	681	100
Education status (EdS)	Primary School	31	4.6
	Middle School	48	7
	High School	262	38.5
	Vocational high school	46	6.8
	Associate Degree	153	22.5
	License	141	20.7
	Total	681	100
Age group (AG)	Under 20 years old	105	15.4
	20-29 years old	395	58
	30-39 years old	140	20.6
	40-49 years old	41	6
	Total	681	100

When the distributions given in Table 1 are examined, more than half (56.8%) of the participants in the 0-72 Months Child Development Course Program are young individuals between the ages of 20-29. In addition, 20.8% of the participants had undergraduate education. Considering that 65.5% of the participants were not working and 88.4% of them attended the course to acquire a profession or to advance in their profession, it can be said that the 0-72 Months Child Development Course Program is seen by individuals as a hope of finding a job. Table 2 presents the distribution of participants who successfully completed the course and those who were not successful in the course.

Table 2. Distribution of Participants According to Their Achievement in the Course

Participant's Success Status in the Course	Frequency (n)	Percentage (%)
Unsuccessful	167	24.5
Successful	514	75.5
Total	681	100

When the course success rates given in Table 2 are analyzed, it is seen that 2/3 of the trainees successfully completed the course and received a MoNE certificate. There is no data on the reasons for the failure of unsuccessful trainees. However, in the participant specifications, it is stated that those who enroll in the courses are obliged to attend the training and that participants who are absent for more than 1/5 of the course hours with or without an excuse will be considered unsuccessful. Therefore, it can be said that there are two possible reasons for failure. The first one is not meeting the required success standard in the evaluations. The second reason for failure is absenteeism.

Data Analysis

The data were analyzed using a binary logistic regression model. The logistic regression model is preferred when the dependent variable (course success) is categorical. Independent variables can be included in the model as both categorical and continuous variables. In this study, all of the independent variables in the logistic regression model (employment status, reasons for choosing the course, education level, and age) are categorical variables.

The aim of logistic regression analysis is to understand how one or more independent variables affect the probability distribution of the dependent variable and to measure these effects. For logistic regression analysis, conditions such as normal distribution of independent variables, a linear relationship, or equal variance-covariance matrices are not required (Çokluk, Şekercioğlu & Büyüköztürk, 2010). In addition, some basic assumptions must be met for logistic regression analysis. One issue to be considered in logistic regression analysis is outliers (Pallant, 2020). Studentized residual values were used to detect outliers. These values measure how much the data point deviates from the model's predictions. Data points with a studentized residual value greater than 2 were considered outliers. As a result of the analysis, 11 outliers were removed from the data set.

In a binary logistic regression model, observations should be independent, there should be no multicollinearity between independent variables, and continuous predictors should be linearly related to a transformed version of the outcome (linearity) (Harris, 2021). Since it is not possible for a participant in the data set to be included in more than one observation due to the conditions of enrollment in the 0-72 Months Child Development Course Program, the assumption of independence of observations is met. Chi-Square tests were used to check the absence of multicollinearity between independent variables. The test results are presented in Table 3.

Table 3. Chi-Square Test Results to Examine the Correlations between Categorical Independent Variables

Independent variables that are examined for the correlation between them	Chi-Square Tests		Degrees of freedom	p	Phi	Cramer's V
	Pearson Chi-Square	Fisher's Exact Test				
ESxRCC		9.40		.13	.13	.09
ESxEdS	14.22		10	.16	.15	.10
ESxAG	60.99		6	.00	.30	.21
RCCxEdS		24.15		.06	.18	.10
RCCxAG		19.17		.01	.17	.10
EdSxAG	90.11		15	.00	.36	.21

Note: Fisher's Exact Test values were taken into account when the expected number of observations was less than 5 in more than 20% of the cells. Employment status: ES, Reason for choosing the course: RCC, Education status: EdS, Age group: AG.

According to the results given in Table 3, the age groups of the participants are correlated to the other three independent variables (ESxAG, $p<.05$; RCCxAG, $p<.05$; and EdSxAG, $p<.05$). However, when the Phi and Cramer's V values for the independent variables found to be correlated are examined, it is seen that the degree of the relationship between the variables and the effect size is low. As a result of the Chi-Square tests, it was determined that there was no multicollinearity problem among the independent variables.

The third assumption of binary logistic regression analysis, the linearity assumption, requires that continuous independent variables have a linear relationship with the logarithmic probabilities of the predicted probabilities for the outcome (Harris, 2021). Since there are no continuous independent variables in this study, in other words, all independent variables are discontinuous variables, this assumption does not need to be met.

In addition to the three assumptions of binary logistic regression provided above, another factor that helps to ensure the correct calculation of the maximum likelihood estimate used in binary logistic regression analysis is the number of participants (subjects, observations). The number of participants in this study is required to be at least 10 times more than the number of independent variables (Peduzzi, Concato, Feinstein & Holford, 1995; Steyerberg et al., 2001; van Smeden et al., 2019). In this study, the data of 681 participants were used for 4 independent variables. Therefore, the number of valid participants for the independent variables is more than enough.

Statistical Package for the Social Sciences (SPSS) version 22.0 (IBM Corporation, 2013) package program developed for social sciences was used to analyze the data. The significance level was set at $p<0.05$. The effect of factors affecting course success was evaluated using odds ratios and p values.

Ethics Approval

In this study, publicly available data were used. For this reason, ethics committee permission was not obtained as it does not fall within the scope of studies that require ethics committee permission (studies that require the application of questionnaires or scales, involving interviews and observations; studies that require permission to use documents, pictures, questionnaires, etc. developed by others).

FINDINGS

In this section of the study, the results of the logistic regression analysis are presented in stages, and the findings are explained. First, the effect of each independent variable on the achievement of the participants was analyzed separately. Then, the findings regarding the classification prediction obtained as a result of the logistic regression analysis for the total effect of the independent variables were presented. By presenting the findings in this way, it was aimed to better understand the effects of the independent variables and to interpret the model more accurately.

First, the effect of employment status (ES) on participants' course achievement was examined. The significance value (p) for the model was calculated as .021. This value indicated that the predictor variable made a significant contribution to the model (χ^2_{ES}=7.75, df=2). The results of the Hosmer-Lemeshow goodness of fit, which requires a significance value greater than .05, supported the goodness of fit of the model (p=1.000, χ^2_{ES}=.000, df=1). This also proved the fit between the model and the data. In addition, the classification statistics correctly classified 75.5% of participants for ES. The Nagelkerke R^2 value indicates the amount of change in the dependent variable explained by the model. The predictor variable explained 1.7% of the course achievement variance. Parameter estimates (beta coefficients, standard error, Wald statistics, and Odds ratios) for the subcategories of the employment status variable are presented in Table 4. When interpreting the subcategories, the category "employee" coded as 0 was taken as the reference category.

Table 4. Logistic Regression Analysis Results for the Effect of ES on Participants' Achievement

		B	Standard error	Wald	df	*p*	Odds ratio
Achievement in the Course	Unemployed	.670	.251	7.152	1	.007	1.954
	Student	.339	.290	1.365	1	.243	1.403

When the findings presented in Table 4 are analyzed, it is seen that the variable of unemployed (p=.007) is significant in course success, while the variable of being a student (p=.243) is not significant. Accordingly, the probability of non-working participants being successful in the course is 1.95 times higher than that of working participants.

Secondly, the effect of the reasons for choosing the course (RCC) on the course achievement of the participants was examined. The significance value (p) for the model was calculated as .213. This value showed that the predictor variable did not make a significant contribution to the model (χ^2_{RCC}=4.492, df=3). Accordingly, it was decided not to include the RCC variable in the model in the analysis where the total effect of the independent variables would be examined.

Thirdly, the effect of the participants' education status (EdS) on course achievement was analyzed. The significance value (p) for the model was calculated as .01. This value showed that the predictor variable made a significant contribution to the model (χ^2_{EdS}=15.182, df=5). The results of the Hosmer-Lemeshow goodness of fit, which requires a significance value greater than .05, supported the goodness of fit of the model (p=1.000, χ^2_{EdS}=.000, df=3). This also proved the fit between the model and the data. In addition, the classification statistics correctly classified 75.5% of participants for EdS. The Nagelkerke R^2 value indicates the amount of change in the dependent variable explained by the model. The predictor variable explained 3.3% of the course success variance. Parameter estimates (beta coefficients, standard error, Wald statistics, and Odds ratios) for the subcategories of the learning status variable are presented in Table 5. When interpreting the subcategories, the category "primary school" coded as 0 was taken as the reference category.

Table 5. Logistic Regression Analysis Results for the Effect of EdS on Participants' Achievement

		B	Standard error	Wald	df	p	Odds ratio
Achievement in the Course	Middle School	.536	.593	.815	1	.367	1.708
	High School	.164	.457	.129	1	.720	1.178
	Vocational High School	.049	.559	.008	1	.930	1.050
	Associate Degree	-.227	.467	.237	1	.626	.797
	License	-.633	.464	1.861	1	.173	.531

When the findings presented in Table 5 were analyzed, it was seen that the subcategories of the education level variable did not have a significant effect on course success. Although this finding shows that education levels do not have a significant effect on course success, since the model is significant in general, it was decided to include the education status variable in the model when examining the total effect of independent variables.

Fourth, the effect of participants' age groups on course success was analyzed. For the model, the significance value (p) was calculated as .000. This value showed that the predictor variables contributed significantly to the model (χ^2_{AG}=29.870, df=3). The results of the Hosmer-Lemeshow goodness of fit, which requires a significance value greater than .05, supported the goodness of fit of the model (p=1.000, χ^2_{AG}=.000, df=2). This also proved the fit between the model and the data. In addition, the classification statistics correctly classified 75.5% of participants for AG. The Nagelkerke R^2 value indicates the amount of change in the dependent variable explained by the model. The predictor variable explained 6.4% of the course success variance. Parameter estimates (beta coefficients, standard error, Wald statistics, and Odds ratios) for the subcategories of the age group variable are presented in Table 6. When interpreting the subcategories, the category "under 20 years old" coded as 0 was taken as the reference category.

Table 6. Logistic Regression Analysis Results for the Effect of AG on Participants' Achievement

		B	Standard error	Wald	df	p	Odds ratio
Achievement in the Course	20-29 years old	-.159	.249	.405	1	.524	.853
	30-39 years old	.417	.312	1.793	1	.181	1.518
	40-49 years old	20.142	6277.087	.000	1	.997	559202761.99

When the findings presented in Table 6 are analyzed, it is seen that the subcategories of the age group variable do not have a significant effect on course success. Although this finding shows that age groups do not have a significant effect on course success, since the model is significant in general, it was decided to include the age group variable in the model when analyzing the total effect of independent variables.

Finally, the effect of the independent variables found to have a significant effect on course success in logistic regression analyses was examined as a block. For the model, the significance value (p) was calculated as .000. This

value showed that the predictor variables contributed significantly to the model (χ^2_{Block}=54.764, df=10). The results of the Hosmer-Lemeshow goodness of fit, which requires a significance value greater than .05, supported the goodness of fit of the model (p=.240, χ^2_{Block}=10.374, df=8). This also proved the fit between the model and the data. In addition, the classification statistics correctly classified 75.2% of participants for the block. The Nagelkerke R^2 value indicates the amount of change in the dependent variable explained by the model. The predictor variables explained 11.5% of the course success variance. Parameter estimates (beta coefficients, standard error, Wald statistics, and Odds ratios) for subcategories of independent variables are presented in Table 7. When interpreting the subcategories, "employee," "primary school," and "under 20 years old" coded as 0 were taken as reference categories.

Table 7. Logistic Regression Analysis Results on the Effect of Demographic Characteristics on Participants' Course Achievement

		B	Standard error	Wald	df	*p*	Odds ratio
Achievement in the Course	Unemployed	.622	.263	5.595	1	.018	1.863
	Student	.551	.310	3.165	1	.075	1.735
	Middle School	.688	.613	1.261	1	.261	1.990
	High School	.345	.476	.526	1	.468	1.412
	Vocational High School	.140	.585	.057	1	.811	1.150
	Associate Degree	-.101	.497	.041	1	.839	.904
	License	-.626	.497	1.587	1	.208	.535
	20-29 years old	.137	.272	.255	1	.613	1.147
	30-39 years old	.888	.354	6.306	1	.012	2.431
	40-49 years old	20.445	6186.086	.000	1	.997	757333225.406

When the findings presented in Table 7 are analyzed, it is seen that the variables "unemployed (p=.018)" and "30-39 years old (p=.012)" are significant in course success while the other variables are not significant. Accordingly, the probability of being successful in the course for the participants who are not working is 1.86 times higher than that of the participants who are working, and the probability of being successful in the course for the participants aged 30-39 is 2.43 times higher than that for the participants younger than 20 years. The education level of the participants does not have a significant effect on the probability of being successful in the 0-72 Months Child Development Course Program.

DISCUSSION, CONCLUSION, AND SUGGESTIONS

The results of this study reveal that the participants who participated in the 0-72 Months Child Development Course Program who were not working and in the 30-39 age range, were more likely to be successful in the course. Participants' purpose of attending the course and their educational background do not have a significant effect on the likelihood of being successful in the course. These results are very important and can be analyzed from various perspectives.

First, the employment status of the participants has a significant effect on the probability of being successful in the course. This result is in line with Delialioglu et al. (2010) and Yukselturk and Top (2013). The higher success rate of non-workers in this study probably reflects the fact that participants in this group are able to devote more time and energy. Unlike working participants, non-workers can learn the lessons better by devoting more time to the course. In the study of Karaman (2016), it is stated that the participants in the courses organized by local governments are mostly women and individuals from disadvantaged groups. This suggests us the 0-72 Months Child Development course may effectively address the educational needs of housewives and the unemployed, underscoring the necessity for targeted outreach.

On the other hand, the fact that participants in the 30-39 age range have a higher success rate may be due to the fact that people in this age group have a certain maturity and experience. This result aligns with the findings reported in the study of Dinçay (2020). In addition, Babanlı and Akçay's (2018) study with İSMEK trainees also

supports the conclusion of this study that lifelong learning competency levels increase as the age of the trainees increases and that younger trainees are not enthusiastic and willing to adopt the lifelong learning approach. It is known that people in this age group are generally more patient, less excited, and more disciplined (Merriam & Mullins, 1981; Özgüngör & Kapıkıran, 2011). This maturity may enable them to navigate the challenges of the course more effectively, suggesting that educational strategies should leverage the strengths of this demographic. These characteristics may be useful in the course participation and learning process.

One of the results of the study is that the education level variable has no effect on the probability of success. This result is inconsistent with the result obtained by Süslü and Ötken (2020) in their study that the education level of the trainees is significant in the achievement of the trainees. This discrepancy may be attributed to the differing contexts and objectives of the courses analyzed. It suggests that the 0-72 Months Child Development course should not be tailored to different educational levels, as participants with varying backgrounds can equally benefit from the program. Further investigation is warranted to explore how educational background interacts with course design and participant outcomes.

These results suggest that the course program can increase achievement rates by targeting participants who are unemployed and in a certain age range. In addition, the results of this study also serve as an important warning for educational institutions and curriculum designers. Educational institutions should consider the characteristics and needs of target audiences when designing curricula. For example, based on the results of this research, it can be suggested that employees are less able to devote time and energy to course achievement, so curricula could be made more flexible, especially for those who are still working.

Limitations of this study include the fact that the sample selection was limited to participants in Istanbul and qualitative data were not collected through face-to-face interviews. These limitations may limit the generalizability and depth of the results of the study. Therefore, quantitative and qualitative research focusing on the course achievement of 0-72 Months Child Development Course Program participants organized by local governments or Public Education Centers in different provinces can be conducted.

In summary, the results of this study underscore the importance of understanding demographic factors of the participants in the context of the 0-72 Months Child Development Course Program. By acknowledging the influence of employment status, age, and education level on course success, educational institutions can better tailor their programs to meet the needs of diverse learners. A holistic approach that considers these variables will ultimately enhance the effectiveness of early childhood education initiatives.

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